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## Well and Septic Guideline for Geothermal Well Systems

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1. A County well location permit is required for all vertical geo-thermal well construction. A scaled house location survey plan or a copy of an approved storm water or sediment control plan must be submitted with the application to show proposed well sites. Hand drawn sketches and faxed copies are not acceptable. The plan must be clear and accurate. The plan must be marked up by the driller to show sediment control measures if the site is less than 25,000 square feet. If there is an approved sediment control/storm water plan for the property, a copy of this plan must be used for the well application.
2. All geo-thermal wells must be “**closed-loop**”, unless the State of Maryland has issued a Groundwater Appropriation Permit. The State requires all “open-loop” geo-thermal wells to return the water to the same aquifer from which it is withdrawn.
3. The permit fee is \$160 and this will allow for up to 10 geo-thermal wells per property.
4. All “radial” well installations must be permitted; and the driller must submit a plan that demonstrates that the bores will not cross any property lines.
5. Minimum geothermal well setbacks:
  - a. 50 feet from any septic tank, septic disposal system or reserve area. 50 feet from existing gravity flow public sewer mains and laterals, except 10 feet from newly constructed laterals where piping is pvc-sch. 40 with solvent welded joints.
  - b. 10 feet from any existing or future building foundation.
  - c. 10 feet from any existing underground utilities.
  - d. 10 feet from storm water drywells and associated pipes
  - e. 30 feet from domestic water wells and irrigation wells
  - f. 10 feet from the property line
  - g. 10 feet from any public right of ways or easements
6. All applications for lots that are less than 25,000 square feet must include a plan to contain the drilling water and cuttings on the property.
7. The property owner and well driller are responsible for compliance with all applicable sediment control, noise, and dust ordinance(s).
8. Horizontal geo-thermal loops do not require county well permit; but the applicant must provide a location sketch at the time of application for the required mechanical permit. Scaled plans are recommended. This sketch must show the loops 25 feet from any part of the septic system and septic reserve area and the connector pipes at least 10 feet from the septic system and reserve area.
9. **Standing column** geo-thermal well systems will be allowed only after the applicant submits evidence that the Maryland Department of the Environment has approved both a Groundwater Appropriations Permit (GAP) and a discharge permit for the return water. Any proposed “**bleed-off**” water must be approved by the State as part of the GAP; and must have an approved discharge site. Use of the standing column well as a drinking water source will not be allowed until the applicant can demonstrate that the HVAC components have the approval of the National Sanitation Foundation (NSF) or the equivalent for contact with drinking water.